

REMARKS

Claims 1-20 are now pending in the application. Claims 1-10 and 14-20 are allowed. Claims 11-13 stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Applicants respectfully traverse the rejection of Claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Paul et al. (U.S. Pat. No. 5,332,927) in view of Chalasani et al. (U.S. Pat. No. 5,969,436) and Gluszek (U.S. Pat. No. 6,541,954).

Paul et al. do not show, teach, or suggest using a contactor to connect batteries to a load, as admitted by the Examiner. **Second Office Action, p. 3 (June 10, 2003).** Paul et al. also do not show, teach, or suggest monitoring voltage that is output by the batteries with a controller, disconnecting batteries from a load using the controller when the voltage falls below a low voltage disconnect threshold, and minimizing voltage transients and current surge when reconnecting the batteries to the load using the controller, as admitted by the Examiner. **Second Office Action at 3.**

Chalasani et al. do not show, teach, or suggest minimizing voltage transients and current surge when reconnecting batteries to a load using a controller.

Chalasani et al. employ a low voltage disconnect (LVD) circuit in an intermittent battery charging scheme. Chalasani et al. disconnect a battery from an AC/DC rectifier during normal operating conditions (col. 4, line 41). While disconnected, the battery self-discharges. A temperature transducer detects the temperature of an environment in which the battery is located. The battery is reconnected to the AC/DC rectifier only

when the temperature of the environment is within a predetermined temperature range (col. 4, line 31).

When a power source that supplies power to the AC/DC rectifier fails, the battery begins to provide power to a load (col. 4, line 60). While the AC/DC rectifier remains unpowered, the battery is disconnected from the load when the battery discharges to a low voltage threshold to prevent the battery from completely discharging (col. 5, line 3).

Voltage transients and current surge are not minimized when the battery is reconnected to the load as required by the claims. For example, Chalasani et al. do not teach first lowering a voltage of the AC/DC rectifier to a discharged voltage of the battery before connecting the battery to the AC/DC rectifier as taught by Applicants. Chalasani et al. are silent with respect to reconnecting the battery to the load. Therefore, Chalasani et al. fail to remedy the shortcomings of Paul et al.

Gluszek does not remedy the shortcomings of either Paul et al. or Chalasani et al. Gluszek teaches a power monitoring circuit that senses line conditions in a three phase power line. A circuit that includes power supplies and a current sensing element is connected across a three phase bridge rectifier that communicates with the three phase power line (Abstract). A circuit analyzer detects an unbalanced line condition based on signals from the current sensing element. Three voltage reducing resistors are connected between the three phase power line and the bridge rectifier (Abstract).

The voltage reducing resistors do not minimize voltage transients and current surge as required by the claims. Since the three phase power line operates at a high voltage and experiences voltage transients, the voltage reducing resistors reduce the voltage that the power monitoring circuit is exposed to (col. 3, line 35). Therefore,

components in the power monitoring circuit are not exposed to the high voltage of the three phase power line.

This eliminates the need to utilize high voltage and high cost circuit components (col. 1, line 23). However, the voltage reducing resistors have no affect on the actual line voltage or line voltage transients of the three phase power line. Therefore, one skilled in the art would not be motivated to incorporate the voltage reducing method taught by Gluszek into a telecommunications power system to minimize voltage transients and current surge when reconnecting batteries to a load.

On page 3, line 1 of the Application as originally filed, Applicants teach that if back-up batteries are reconnected to a load by closing a contactor, sharp voltage transients and high in-rush current occurs. This may damage the batteries and the contactor and also disrupt the operation of the load. For example, Applicants teach first lowering a voltage of a rectifier module to a discharged voltage of the battery before reconnecting the battery to the rectifier module. Then, Applicants teach gradually increasing the voltage of the rectifier module to a float voltage of the battery.

Claims 12 and 13 depend directly or indirectly from Claim 11 and are allowable over Paul et al., Chalasani et al., and Gluszek for the same reasons.

ALLOWABLE SUBJECT MATTER

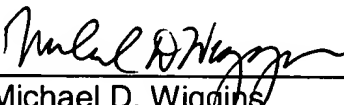
Applicants acknowledge the allowance of Claims 1-10 and 14-20 and accordingly thank the Examiner.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: 3/12/04

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